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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,162	03/16/2004	Hwal Rim Lee	2080-3238	4151

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EXAMINER

NATNAEL, PAULO M

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,162

Applicant(s)

LEE, HWAL RIM

Examiner

Paulos M. Natnael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 3,8 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **9-10, 15,16** are rejected under 35 U.S.C. 102(e) as being anticipated by Klopfenstein et al., U.S. Patent No. 6,985,190.

Considering claim **9**, Klopfenstein et al. (hereinafter "Klopfenstein") discloses a real-time signal strength display of terrestrial digital television signals. Klopfenstein discloses an HDTV couple to an terrestrial antenna displays the real-time signal strength of terrestrial digital television signals. Klopfenstein discloses a tuner 30, microprocessor 32, DBS/set-top receiver 14, and TV 12 and display 36. Klopfenstein discloses the display 36 including OSD 54 displaying channels 9, 13, 15, 17, and 54 and corresponding signals strength 85, 94, 85 and 93. Klopfenstein also discloses memory 34.

Considering claim **10**, Klopfenstein discloses memory 34 and microprocessor 32 that converts the video signal to suitable form to be displayed on the screen 36. (see col. 3, lines 51-61)

Considering claims **15** and **16**, Klopfenstein discloses the microprocessor 32 that includes the ability to generate, process, and display OSD information/data on display 36. The OSD information/data may be part of a received television signal or may be generated internally. Such OSD information may include channel number, time, signal strength, on-screen electronic program guides (EPGs), Internet data, pop-up windows, on-screen electronic programming menus, and the like. Microcontroller unit 32 also runs various software necessary to process and/or utilize the incoming digital signals as is known in the art and additionally as provided herein. See col. 3, line 51-61.

3. Claim **17** is rejected under 35 U.S.C. 102(e) as being anticipated by Iwamura, U.S. Patent No. 5,940,028.

4. Considering claim 17, Iwamura discloses a tuner 2, demodulation unit (equalizer 5, error correction 6), signal strength searching unit and signal strength storing unit and signal strength storing unit (CPU 13) as well as memory 98 within the Decoder, demultiplexing unit (Demux 7) that separates and outputs the video and audio signals to video decoder 8 and audio decoder 9, and a video display processor and microcomputer (CPU 13) which allows the OSD 10 (fig.7) to be displayed on the screen. Thus, Iwamura discloses all claimed subject matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **1,2,4,5,7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Klopfenstein et al., U.S. Patent No. 6,985,190.

Considering claims 1, Klopfenstein et al. (hereinafter "Klopfenstein") discloses a real-time signal strength display of terrestrial digital television signals. Klopfenstein discloses an HDTV couple to an terrestrial antenna displays the real-time signal strength of terrestrial digital television signals. Klopfenstein discloses a tuner 30, microprocessor 32, DBS/set-top receiver 14, and TV 12 and display 36. Klopfenstein discloses the display 36 including OSD 54 displaying channels 9, 13, 15, 17, and 54 and corresponding signals strength 85, 94, 85 and 93. Klopfenstein also discloses memory 34.

Klopfenstein discloses displaying the signal strength of each channel (fig.7). Klopfenstein does not specifically disclose displaying the sum of the signal strengths of the entire channels. However, displaying the sum of the signal strengths of the entire channels would be obvious to the skilled in the art in that it would simply involve adding

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or it would be a simple matter of adding each signal strength. Thus, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Klopfenstein by adding a feature that adds the total as it involves a simple mathematical operation as well as a computer programming.

As to claim 2, see rejection of claim 1;

As to claims 4 and 5, see rejection of claim 1;

Regarding claim 7, see rejection of claim 1.

Regarding claim 20, see rejection of claim 1.

7. Claims 6, 11-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Klopfenstein et al., U.S. Patent No. 6,985,190 in view of Iwamura, U.S. Patent No. 5,940,028.

Considering claim 6, see rejection of claim 14 below.

Considering claim 11-13, Klopfenstein discloses a tuner 30, microprocessor 32, DBS/set-top receiver 14, and TV 12 and display 36. Klopfenstein does not disclose a demultiplexer or a decoder. However, demultiplexing and/or decoding for demultiplexing/decoding the video, audio and other data from the receiving signal is notoriously well known in the art. In that regard, Iwamura discloses a system and method of aligning an antenna and displaying channel numbers as well as signal strength of each channel (fig.7). Iwamura discloses a tuner 2, equalizer 5, error

correction 6, CPU 13, Demux 7 that separates and outputs the video and audio signals to video decoder 8 and audio decoder 9. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Klopfenstein by providing the demux and decoding in order to properly and efficiently separate video, audio and other received data.

Considering claim 14, Klopfenstein as modified above does not disclose a PSI/PSIP decoder for decoding additional data. However, again such decoders (PSI/PSIP) are well known in the art of television broadcasting that particularly use the standard MPEG II standard. Therefore, the examiner takes official notice in that the PSI/PSIP decoders are well known in the art of television and would have been obvious to the skilled in the art at the time the invention was made to modify the system Iwamura by providing a PSIP or PSI decoder in order to be able to decode MPEG standard data and make the system of Klopfenstein more useful.

Considering claim 18, Iwamura discloses video and audio decoders. Iwamura does not specifically disclose a PSI/PSIP decoder for decoding additional data. However, such decoders (PSI/PSIP) are well known in the art of television broadcasting that particularly use the standard MPEG II standard. Therefore, the examiner takes official notice in that PSI/PSIP decoders are well known in the art of television signal reception and would have been obvious to the skilled in the art at the time the invention was made to modify

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the system Iwamura by providing a PSIP or PSI decoder in order to be able to decode MPEG standard data and make the system of Iwamura more useful.

Allowable Subject Matter

8. Claims 3, 8, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

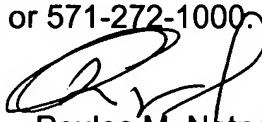
9. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose a method of displaying signal strengths, wherein the number of the channels, signal strength of each channel, and sum of the signal strengths of the entire channels for the searched channels are outputted as a voice, as in claims 3 and 19; and, as a picture, a numeral or a voice as in claim 8.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 9am - 5:30pm M,W, F (7am-3:30pm T,Th).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paulos M. Natnael
Primary Examiner
Art Unit 2622

PMN 

August 2, 2006